ABSTRACT OF THE DISCLOSURE

A network diagnostic system is provided for an optical transport network having a plurality of network elements. The network diagnostic system includes at least one network element having a network diagnostic operation integrated therein and operable to perform the network diagnostic operation, thereby determining a network performance characteristic associated with the optical transport network; a wayside communication subsystem interconnecting the network elements residing in the optical transport network; and a network diagnostic device in data communication with the at least one network element and operable to initiate the network diagnostic operation at the network element.